

**Summary of Funding Information**

## Summary of Funding Information

|  |   |
|--|---|
| Template Name                                    | BY2020  |
| Is this investment a consolidated business case? | No  |
| Consolidated Business Case Parent Investment(s)  |   |
| Investment Name                                  | BAS - Budget Automation System  |
| Investment Revision Number                       | 39  |
| Point of Contact                                 | Chin, Derek   |
| Revision Comment                                 |   |
| Full UPI/UII Code                                | 020-000010061 00-00-02-16-02-00   |
| Office of Investment                             | OCFO  |
| Current EPA Investment Type                      | Medium  |
| OMB Short Description                            | BAS - Budget Automation System, formerly titled BFS - Budget Formulation System, is EPA's Budgeting System. As of 2011, this investment is detached from OCFO Legacy Financial System business case. Retirement to occur in FY 2019 depending upon BFS hosting project. |

Briefly describe the investment's purpose, goals, and current or anticipated benefits (quantitative and/or qualitative). Include the investment's specific contribution to mission delivery or agency management support functions and identify key customers, stakeholders, and other beneficiaries.

The purpose of the Budget Automation System is to provide an integrated budgeting and performance management system for the entire agency, with the goal of supporting the development of congressional justifications, OMB submissions, operating plans, and other important budget functions the offices of the agency require. The primary beneficiaries include, the agency, OMB, and Congress.

OCFO is replacing the Budget Automation System with the Budget Formulation System.

Based on the Agency IRM Strategic Plan, describe how the investment contributes to the agency target EA and its description in the Enterprise Roadmap. Include a description of how the investment includes or will achieve programmatic or technical innovation.

BAS contributes to the agency target EA by providing funding data on other EA investments. By providing this funding data, the EPA is able to appropriately evaluate the costs of all systems while still trying to achieve its strategic goals. This is best represented in CPIC submissions. CPIC submissions pull data from BAS to report on each of the agency's system costs in order to fulfill Enterprise Roadmap objectives.

The agency's budget formulation processes are used by all the investments to inform the agency's EA Program to support the Target architecture and enterprise Roadmap.

EPA's future Budget Formulation System (BFS) will use cloud computing as a technical innovation. As a cloud enabled

application, the EPA will be able to store its data offsite on a third party's server. This will reduce the agency's cost of purchasing and maintaining its own server. Also, BFS will no longer have a client-server relationship, but will be introduced as a web enabled application, allowing access to headquarter, regional, and teleworking employees. In addition, the EPA will be able to develop the BFS program in conjunction with other agencies in order to share costs. BFS is envisioned as a shared service across the federal government.

#### Investment Summary/Description

BAS will continue to operate in its current state in FY 2015, while also continuing development that starts in FY 2014 on the new BFS system. BAS will be transitioning from its old legacy status to an improved system.

The current BAS system has been in production since 1997 and will be retired for the new BFS system in 2017. The BFS system is being developed in a module phased approach. Until all BFS modules are completed in 2017, BAS will maintain minimum funding to operate.

The new BFS system will provide an integrated budgeting and performance management system for the entire agency for congressional justifications, OMB, operating plan, and other miscellaneous functions.

In which year did or will this investment begin? (Specify year - e.g., 2013)? 1997

In which year will this investment reach the end of its estimated useful life? (specify year - e.g., 2021) 2020

BY 2017 Internal Summary of Funding Estimates Table (include non-pay and pay dollars)

| Funding Type             | 2015 (PY) | 2016 (CY) | 2017 (BY) |
|--------------------------|-----------|-----------|-----------|
| Planning                 | 0         | 0         | 0         |
| DME (Excluding Planning) | 0         | 0         | 0         |
| O&M                      | 824       | 824       | 500       |

#### Additional Questions

Functional/Business Sponsor Email bloom.david@epa.gov

Functional/Business Sponsor Name David Bloom

Functional/Business Sponsor Phone Number 2025641151

Functional/Business Sponsor Phone Number Extension

Functional/Business Sponsor Title Deputy CFO

Integrated Program Team (IPT) Contact Information

| OMB ID | IPT Member Role        | Title | Name             | Phone Number | Extension | Email                   | Include In OMB Dashboard |
|--------|------------------------|-------|------------------|--------------|-----------|-------------------------|--------------------------|
|        | IT PM                  |       | Chin, Derek J    | 2025641895   |           | chin.derek@epa.gov      | Omit Synchronization     |
|        | Business Process Owner |       | Terris, Carol    | 2025640533   |           | terris.carol@epa.gov    | Omit Synchronization     |
|        | Contract Specialist    |       | Herzfeld, Jackye | 2025644599   |           | herzfeld.jackye@epa.gov | Omit Synchronization     |
|        | IT Specialist          |       | Herzfeld, Jackye | 2025644599   |           | herzfeld.jackye@epa.gov | Omit Synchronization     |
|        | Security Specialist    |       | Kim, Eric        | 2025646203   |           | kim.eric@epa.gov        | Omit Synchronization     |

Primary Strategic Goal

Multiple-Goal IT Investments

Primary BRM Mapping (FEA BRM v3.1)

101-Budget Formulation

Secondary BRM Mapping #1 (FEA BRM v3.1)

104-Strategic Planning

Secondary BRM Mapping #2 (FEA BRM v3.1)

Secondary BRM Mapping #3 (FEA BRM v3.1)

Secondary BRM Mapping #4 (FEA BRM v3.1)

The list of BRM mappings can be obtained from the following url: <http://www.whitehouse.gov/omb/e-gov/fea>

Did you conduct an alternatives analysis for this investment? Yes

If yes, describe the results of the alternatives analysis.

Two rounds of alternative analysis were performed to determine whether to replace BAS and how to replace it. One under the auspices of OMB's Budget Line of Business activity, which looks at systems across the federal government. The other was a more tailored EPA-specific analysis.

Other existing government and private sector systems were looked at as options by the EPA, but no other systems met EPA's requirements other than the current BAS / Budget Formulation System. Development of Budget Formulation System is a preferred option. Alternatives described, below.

If no analysis is planned, please briefly explain why:

List and describe three alternatives identified for this investment (may include Status Quo).

1. Status Quo - Will require using Citrix to maintain usability when the EPA transitions to Windows 7. However, there are other issues associated with the software, and replacement is preferred over using existing oracle versions that have ongoing software problems. In addition, there are functionality enhancements the EPA needs that will provide significant efficiencies in staff time, and also enable offices to eliminate local systems. In addition, the current system is written to interact with Lotus Notes database which is currently being migrated to the Microsoft suite of tools. The status quo is becoming less of a viable option due to supporting applications and inherent outdated technologies.

2. Rewrite and update - As described above, enhancements in functionality have been identified by the EPA that will save significant staff time, and provide an enterprise solution that replaces a number of locally maintained smaller systems. Other agencies have indicated interest in using a system with the functions in EPA's BAS / BFS if configured to their budget structures. The Budget Formulation System is being offered as a Shared Service to other agencies while utilizing the cloud hosting model, creating savings for the federal government overall and meeting the recent guidance from OMB. To meet that goal, BFS has been established as a new Working Capital Fund service to other agencies.

3. Modify existing government systems - The review looked at systems in place across a number of other agencies. These systems were generally rudimentary and would prove more expensive to modify them than to proceed with the Budget Formulation System development.

What is the impact of NOT funding this investment?

The budgetary information of the agency cannot be formulated without the BAS investment. The same will apply to the replacement system once it is in place - the agency will not be able to formulate budgetary information without the

Budget Formulation System. Thus, the agency and external stakeholders will not be able to make the appropriate budget decisions without the Budget Formulation System.

Not replacing the legacy system will mean the agency continues to use outdated technology with increasing costs of maintenance, and forgoes the advantages and efficiencies expected from new functionality that is planned. In addition, the agency and the wider federal government would lose the potential benefit of providing a federal shared service in this area.

As noted before, this CPIC provides a transition from the agency's old legacy status to an improved system. The current BAS system has been in production since 1997 and will be retired for the new BFS system in 2017.

Does the investment have a Risk Management Plan? Yes

What is the date of the risk management plan? 2/1/2015

Infrastructure-as-a-Service (IaaS) Costs Table

| Cloud Model     | PY | CY | BY |
|-----------------|----|----|----|
| Public Cloud    | 0  | 0  | 0  |
| Private Cloud   | 0  | 0  | 0  |
| Community Cloud | 0  | 0  | 0  |
| Hybrid Cloud    | 0  | 0  | 0  |

Platform-as-a-Service (PaaS) Costs Table

| Cloud Model     | PY | CY | BY |
|-----------------|----|----|----|
| Public Cloud    | 0  | 0  | 0  |
| Private Cloud   | 0  | 0  | 0  |
| Community Cloud | 0  | 0  | 0  |
| Hybrid Cloud    | 0  | 0  | 0  |

Software-as-a-Service (SaaS) Costs Table

| Cloud Model     | PY | CY | BY |
|-----------------|----|----|----|
| Public Cloud    | 0  | 0  | 0  |
| Private Cloud   | 0  | 0  | 0  |
| Community Cloud | 0  | 0  | 0  |
| Hybrid Cloud    | 0  | 0  | 0  |

## ***Project Execution Data***

### Projects Table

Projects Table

| OMB ID | Project ID | Project Name    | Objectives /Expected Outcomes  | Project Start Date | Project Completion Date | Project Life cycle Cost | SDLC Methodology                             | PM Name                   | PM Level of Experience  | PM Phone   | PM Extension | PM Email                | Release Every 6 Months? | Comment | When was the last date that a revised product was deployed to production? | Funded by TMF or IT WCF Funding | Commercial Solution(s) Adoption | Commercial Solution(s) Reasoning | Commercial Solution(s) Costs | Include In OMB Dashboard |
|--------|------------|-----------------|--|--------------------|-------------------------|-------------------------|--|---------------------------|---|------------|--------------|-------------------------|-------------------------|---------|---|---------------------------------|---------------------------------|----------------------------------|------------------------------|--------------------------|
|        | 000010061A | Citrix          | Web based version of BAS   | 11/10/2010         | 12/31/2013              | 48                      | Not Primarily a Software Development Project | Jackye Herzfeld (retired) | No certification, but with 4 or more years PM experience (within the last five years) | 2025644599 |              | herzfeld.jackye@epa.gov | N/A                     |         |   | N/A                             |                                 |                                  |                              | Omit Synchronization     |
|        | 000010061B | BAS Maintenance | Operate and maintain BAS for its remaining years while BFS is developed. | 07/01/2017         | 09/30/2019              | 1503                    | Not Primarily a Software Development Project | Ed Cottrell               | No certification, but with 4 or more years PM experience (within the last five years) | 2025645002 |              | cottrill.edward@epa.gov | N/A                     |         |   | N/A                             |                                 |                                  |                              | Omit Synchronization     |

## Project Activities

**Master Cost & Schedule: Comparison of Actual Work Completed and Actual Costs to Current Approved Baseline**

\* Costs in thousands

This table represents milestones at Work Breakdown Structure level 1

| Activity Number | Is Complete | Project **      | Activity Name**                | Activity Description**  | Structure ID** | OMB ID** | Current Baseline |           |           |            |            |            |                 |            |            | Include In ITDB      |  |  |
|-----------------|-------------|-----------------|--------------------------------|---|----------------|----------|------------------|-----------|-----------|------------|------------|------------|-----------------|------------|------------|----------------------|--|--|
|                 |             |                 |                                |   |                |          | Total Cost       |           |           | Start Date |            |            | Completion Date |            |            |                      |  |  |
|                 |             |                 |                                |   |                |          | Planned**        | Projected | Actual    | Planned**  | Projected  | Actual     | Planned**       | Projected  | Actual     |                      |  |  |
| A.1             | Yes         | Citrix          | Regional Implementation        | Implement Citrix in all 10 regions  | 10061-A.1      |          | \$48.000         | \$48.000  | \$48.000  | 11/10/2010 | 11/10/2010 | 11/10/2010 | 12/7/2011       | 12/7/2011  | 12/7/2011  | Omit Synchronization |  |  |
| A.2             | Yes         | Citrix          | Headquarter Implementation     | Implement Citrix in the rest of the Offices in the Agency. This will coincide with the implementation of Windows 7, ensuring compatibility between the softwares. | 10061-A.2      |          | \$48.000         | \$48.000  | \$48.000  | 10/1/2012  | 10/1/2012  | 10/1/2012  | 12/31/2012      | 12/31/2012 | 12/31/2012 | Omit Synchronization |  |  |
| B.1             | Yes         | BAS Maintenance | Maintenance/Retirement Phase 1 | Maintain the remaining functions in BAS while the other requirements in BFS are being developed.  |                |          | \$257.000        | \$372.000 | \$331.500 | 7/1/2017   | 7/2/2017   | 7/1/2017   | 12/30/2017      | 12/29/2017 | 12/30/2017 | Omit Synchronization |  |  |
| B.2             | Yes         | BAS Mainten     | Maintenance/Retirement Phase 2 | Plan for the retirement   |                |          | \$65.000         | \$297.000 | \$300.000 | 1/1/2018   | 1/2/2018   | 1/1/2018   | 6/30/2018       | 6/29/2018  | 6/30/2018  | Omit Synchroniz      |  |  |



| Activity Number | Is Complete | Project **      | Activity Name**                | Activity Description**   | Structure ID** | OMB ID* | Current Baseline |           |        |            |           |          |                 |            |        | Include In ITDB      |  |  |
|-----------------|-------------|-----------------|--------------------------------|--|----------------|---------|------------------|-----------|--------|------------|-----------|----------|-----------------|------------|--------|----------------------|--|--|
|                 |             |                 |                                |  |                |         | Total Cost       |           |        | Start Date |           |          | Completion Date |            |        |                      |  |  |
|                 |             |                 |                                |  |                |         | Planned**        | Projected | Actual | Planned**  | Projected | Actual   | Planned**       | Projected  | Actual |                      |  |  |
|                 |             | ance            |                                | of BAS. Decide how to retire BAS and gather the required resources. At the same time, keep BAS operating while other BFS modules need to be completed. |                |         |                  |           |        |            |           |          |                 |            | ation  |                      |  |  |
| B.3             | No          | BAS Maintenance | Maintenance/Retirement Phase 3 | Begin SLCM documentation and complete all retirement activities and cease operation.   |                |         | \$32.000         | \$149.000 |        | 7/1/2018   | 7/2/2018  | 7/1/2018 | 9/30/2018       | 12/30/2018 |        | Omit Synchronization |  |  |
| B.4             | No          | BAS Maintenance | Maintenance/Retirement Phase 4 | Complete any decommissioning activities required.  |                |         | \$15.000         | \$7.500   |        | 10/1/2018  | 1/1/2019  |          | 12/30/2018      | 6/30/2019  |        | Omit Synchronization |  |  |
| B.5             | No          | BAS Maintenance | Maintenance/Retirement Phase 5 | Complete any decommissioning activities required.  |                |         | \$3.750          | \$3.750   |        | 7/1/2019   | 7/2/2019  |          | 9/30/2019       | 9/29/2019  |        | Omit Synchronization |  |  |

## Project and Operational Risks

## Project and Operational Risks

| OMB ID | Risk Type        | Project         | Risk Name                                 | Risk Category  | Risk Probability | Risk Impact | Mitigation Plan   | Is This Risk Closed? | Include in IT Dashboard |
|--------|------------------|-----------------|---|--|------------------|-------------|---|----------------------|-------------------------|
|        | Operational Risk |                 | Relationship with other financial systems | Dependencies and Interoperability between this investment and others | Low              | Low         | Maintain and ensure working relationship between BFS and other financial systems  | No                   | Omit Synchronization    |
|        | Operational Risk |                 | Security Risks                            | Security   | Low              | Low         | The Information Security Officer maintains internal controls, security updates, and system security plan  | No                   | Omit Synchronization    |
|        | Operational Risk |                 | Server down time                          | Technology   | Low              | Low         | In case the server goes down, the backup test server will be used, followed by the server in RTP, followed by physically going to Keylogic Systems in Columbia, Maryland. | No                   | Omit Synchronization    |
|        | Operational Risk |                 | Sensitive budget data                     | Data/Info  | Low              | Medium      | Ensure proper controls are in place and the correct security measures are taken.  | No                   | Omit Synchronization    |
|        | Project Risk     | BAS Maintenance | BFS Delayed Development                   | Schedule   | Low              | High        | Continue operating BAS until BFS is completed.  | No                   | Omit Synchronization    |
|        | Project Risk     | BAS Maintenance | Unacceptable retirement actions           |  | Low              | Low         | Work with OEI/EA on SLCM documentation to ensure BAS is phased out appropriately.   | No                   | Omit Synchronization    |
|        | Project Risk     | BAS Maintenance | Disposing Hardware                        | Project resources  | Low              | Low         | Ensure all hardware that's no longer needed is done appropriately.  | No                   | Omit Synchronization    |

## ***Operational Performance Data***

### **Operational Performance Metrics**

Provide results specific metrics which are appropriate to the mission of the investment and its business owner or Customer. Generally these metrics should be provided by the investment's business owner and will reflect performance in the broader business activities and not IT-specific functions. The best results specific metrics will support the business case justification and could be the foundation of a quantitative approach to defining benefits in a cost-benefit analysis. Unlike in private industry where identified benefits accrue to the organization, government benefits may accrue to the public. Therefore, results-specific metrics may demonstrate the value realized external to the Federal Government. The table must include a minimum of two results-specific metrics, one of which should reflect customer results.

Each metric description should help the user understand what is being measured. In this field, describe the units used, any calculation algorithm used, and the definition or limits of the population or "universe" measured.

The unit of measure should be characterized (e.g. number, percentage, dollar value etc) for each metric. Each metric listed in the table must also indicate how often actual measurements will be reported (monthly, quarterly or semi-annually), as well as baseline, targets and actual results. The "Actual for PY" should be final actual measurement from the previous year or the average actual results from the previous year. Describe whether a successful actual measurement would be "over the target" or be "under the target" in "Measurement Condition." "Comment" field is required for performance metrics where target not expected to be met. All data will be displayed on the IT Dashboard.

## Operational Performance

| OMB ID | Metric ID | Metric Name                               | Metric Description  | Unit of Measure   | Performance Measurement Category Mapping | Agency Baseline Capability | Target for 2018 | Target for 2019 | Measurement Condition | Reporting Frequency | Agency Strategic Objective or Priority Goal | Is the Metric Retired? | Include In OMB Dashboard |
|--------|-----------|---|---|-------------------|--|----------------------------|-----------------|-----------------|-----------------------|---------------------|---|------------------------|--------------------------|
|        |           |   | Number of Responsible Planning and Implementation Offices (RPIOs) using Citrix  | Number of Offices |  |                            |                 |                 | Over target           | Semi-Annual         |   |                        | Omit Synchronization     |
|        |           |   | Percent of the time the server is up and running  | Percentage        |  |                            |                 |                 | Over target           | Semi-Annual         |   |                        | Omit Synchronization     |
|        | A         | Financial Actuals Reporting               | Financial actuals reporting (e.g. SNC) completed accurately and on time each quarter  | Quarterly Reports | Customer Satisfaction (Results)          |                            |                 |                 | Over target           | Quarterly           |   | No                     | Omit Synchronization     |
|        | B         | Ad Hoc Report Retrieval Time Using Citrix | Time it takes to retrieve data in the Ad Hoc Report module using the Citrix web environment. Report used for testing is under Derek Chin's private reports titled: CPIC TESTING                                   | Seconds           | Customer Satisfaction (Results)          |                            |                 |                 | Under target          | Annual              |   | No                     | Omit Synchronization     |
|        | C         | External Budget Submissions               | External budget submissions (OMB and Congressional Justification) are created and submitted on schedule.  | Submissions       | Strategic and Business Results           |                            |                 |                 | Over target           | Annual              |   | No                     | Omit Synchronization     |
|        | D         | Final End of Month Actual Results         | Compile the final end of month actual results in BAS.   | Data Type         | Customer Satisfaction (Results)          |                            |                 |                 | Over target           | Monthly             |   | No                     | Omit Synchronization     |
|        | E         | Citrix Launch Response Time               | The time it takes the BAS application to load from the Citrix environment   | Seconds           | Customer Satisfaction (Results)          |                            |                 |                 | Under target          | Annual              |   | No                     | Omit Synchronization     |
|        | F         | Citrix License Cost                       | The relatively inexpensive cost for renewing Citrix (\$8,000) provides the entire agency, including regional users and offsite users, centralized access without the difficulty of coordinating with secondary IT | Dollars           | Financial Performance                    |                            |                 |                 | Under target          | Annual              |   | No                     | Omit Synchronization     |

| OMB ID | Metric ID | Metric Name | Metric Description                             | Unit of Measure | Performance Measurement Category Mapping | Agency Baseline Capability | Target for 2018 | Target for 2019 | Measurement Condition | Reporting Frequency | Agency Strategic Objective or Priority Goal | Is the Metric Retired? | Include In OMB Dashboard |
|--------|-----------|-------------|--|-----------------|--|----------------------------|-----------------|-----------------|-----------------------|---------------------|---|------------------------|--------------------------|
|        |           |             | administrative maintenance (dll updates, etc.) |                 |  |                            |                 |                 |                       |                     |   |                        |                          |

As actual results are measured at the appropriate frequency, report them using the following table. Also use this table when applicable to provide any historical actual results for a new metric (optional). When adding a new metric, include historical actual result information as available.

Operational Performance Actual Results Table

| OMB ID | Performance Metric                        | Actual Result | Date of Actual Result | Comment   | Include on IT Dashboard |
|--------|---|---------------|-----------------------|---|-------------------------|
|        | Financial Actuals Reporting               | 4             | 4/8/2015              |   | Omit Synchronization    |
|        | Ad Hoc Report Retrieval Time Using Citrix | 5             | 4/8/2015              | Results may vary depending on the location of the user. Users that are further away from headquarters, such as region 9 and region 10, will experience slightly longer retrieval times due to the data traveling across a longer physical distance. | Omit Synchronization    |
|        | External Budget Submissions               | 2             | 4/8/2015              |   | Omit Synchronization    |
|        | Final End of Month Actual Results         | 13            | 4/8/2015              |   | Omit Synchronization    |
|        | Citrix Launch Response Time               | 30            | 4/8/2015              |   | Omit Synchronization    |
|        | Citrix License Cost                       | \$8,000       | 4/8/2015              |   | Omit Synchronization    |



***EPA 200 Compliance***

EPA 200 Compliance Comments

EPA 200 Compliance Comments

Kimberly Dubbs sent compliance on 4/25/2016